

Listing of the Claims:

Claims 1-7 (canceled)

Claim 8. (previously presented) A method in accordance with claim 10 wherein the feed stream portions are subdivided by the channel walls of the second catalyst section into from 2 to 4 subdivided feed stream portions at the inlet face of the second catalyst section.

Claim 9. (previously presented) A method in accordance with claim 10 wherein the gas and liquid are passed through the reactor in a co-current downflow mode.

Claim 10. (previously presented) In the method for treating a gas-liquid feed stream in a structured monolithic catalyst reactor wherein a feed stream of combined gas and liquid is brought into contact with a honeycomb catalyst bed made up of multiple honeycomb sections, each section comprising parallel, open-ended honeycomb channels bounded by catalyst-containing channel walls extending from an inlet end to an outlet end thereof, the channels of both sections lying parallel to a common flow axis through the reactor, the improvement wherein:

- the feed stream is directed past the inlet end and through a plurality of the honeycomb channels of the first section of catalyst as a plurality of feed stream portions, the feed stream portions comprising gas and liquid in a proportion effective to develop Taylor flow conditions within the honeycomb channels;

- the feed stream portions are reacted against the catalyst-containing channel walls of the first section of catalyst and then discharged from the outlet end thereof;

- each of a majority of the discharged feed stream portions is separated at the inlet end of the second section of catalyst into subdivided feed stream portions that are directed into a set of at least two parallel adjoining channels in the second catalyst section, the first and second catalyst sections being arranged in flow-connecting, end-to-end relationship with

each other such that unchanneled flow of the feed stream portions is avoided;

the subdivided feed stream portions are reacted against the catalyst-containing walls of the second catalyst section; and

the thus-reacted subdivided feed stream portions are discharged from the second catalyst section.